

Python

Introduction

(<https://docs.python.org/3/>)

Introduction

Pros

- ▶ Simple
- ▶ Interpretive
- ▶ Dynamic

Cons

- ▶ Slow ??

C vs Python

C

```
1#include <stdio.h>
2int main() { int x, y, sum;
3    printf("Enter two integers: ");
4    scanf("%d %d", &x, &y);
5    sum = x+y;
6    printf("sum is %d", sum);
7    return 0; }
```

Python

```
1a = int(input("Enter two integers: "))
2b = int(input())
3print("sum is",a+b)
```

Data types

1. Integer (e.g. 1)
2. Float (e.g. 1.01)
3. List (e.g. [1,2,3])
4. String (e.g. 'hello')
5. Tuple (e.g. (1,2,3))
6. ...

Data as an object

Every data type is an object and methods related to it.

1. Integer and float supports general mathematical operations (e.g. addition, subtraction, multiplication).
2. Strings and list have some similar methods assigned to them.
3. Other data types have their own methods assigned to them.

Installation

1. Supports all platforms : Windows, Linux, Mac
2. Basic python - <https://www.python.org/downloads/>
3. For data science - <https://www.anaconda.com/distribution/>

Python hands-on

1. Integer and float operations.
2. List and string operations.
3. Standard input and output.

Logical expressions

1. Boolean.
2. Logical operators.
3. If-else statement.

Loops

1. FOR loop
2. WHILE loop